

Amendments to the Claims:

Claims 28-40, as follows, are pending in this application:

1.-27. (canceled).

1 28. (previously presented) A method of monitoring data stored on a
2 primary storage system comprising:
3 creating a sequence of mirrors-in-the-middle, each mirror-in-the-
4 middle including a copy of data stored on the primary storage system at a fixed point
5 in time;
6 checking a first mirror-in-the-middle of the sequence of mirrors-in-the-
7 middle to see if a copy of data stored on the first mirror-in-the-middle satisfies at
8 least one constraint; and
9 if not, repeating checking previous mirrors-in-the-middle in the
10 sequence of mirrors-in-the-middle until one of the checked previous mirrors-in-the-
11 middle includes an uncorrupted copy of data satisfying the at least one constraint.

1 29. (previously presented) The method of claim 28 further
2 comprising restoring the uncorrupted copy of data to the primary storage system.

1 30. (previously presented) The method of claim 28 wherein checking
2 comprises scanning for viruses.

1 31. (previously presented) The method of claim 28 wherein checking
2 comprises monitoring a database for consistency of constraints.

1 32. (previously presented) The method of claim 28 further
2 comprising storing the sequence of mirrors-in-the-middle using a data management
3 appliance.

1 33. (previously presented) The method of claim 28 further
2 comprising restoring the copy of data stored on the first mirror-in-the-middle to the
3 primary storage system if the copy of data stored on the first mirror-in-the-middle
4 satisfies the at least one constraint.

1 34. (previously presented) The method of claim 28 further
2 comprising:
3 if the copy of data stored on the first mirror-in-the-middle satisfies the
4 at least one constraint, checking a copy of data stored on at least one additional
5 mirror-in-the-middle later in the sequence of mirrors-in-the-middle than the first
6 mirror-in-the-middle to see if the copy of data stored on the at least one additional
7 mirror-in-the-middle satisfies the at least one constraint.

1 35. (previously presented) A data management appliance comprising:
2 a random-access storage unit storing a sequence of mirrors-in-the-
3 middle, each mirror-in-the-middle including a copy of data stored on a primary
4 storage system at a fixed point in time; and
5 control logic in communication with the random-access storage unit,
6 the control logic operative to checking a first mirror-in-the-middle of the sequence
7 of mirrors-in-the-middle to see if a copy of data stored on the first mirror-in-the-
8 middle satisfies at least one constraint and, if not, repeating checking previous
9 mirrors-in-the-middle in the sequence of mirrors-in-the-middle until one of the
10 checked previous mirrors-in-the-middle includes an uncorrupted copy of data
11 satisfying the at least one constraint.

1 36. (previously presented) The data management appliance of claim
2 35 wherein the control logic is further operative to restore the uncorrupted copy of
3 data to the primary storage system.

1 37. (previously presented) The data management appliance of claim
2 35 wherein checking comprises scanning for viruses.

1 38. (previously presented) The data management appliance of claim
2 35 wherein checking comprises monitoring a database for consistency of constraints.

1 39. (previously presented) The data management appliance of claim
2 35 wherein the control logic is further operative to restore the copy of data stored on
3 the first mirror-in-the-middle to the primary storage system if the copy of data stored
4 on the first mirror-in-the-middle satisfies the at least one constraint.

1 40. (previously presented) The data management appliance of claim
2 35 wherein the control logic is further operative to check a copy of data stored on at
3 least one additional mirror-in-the-middle later in the sequence of mirrors-in-the-
4 middle than the first mirror-in-the-middle to see if the copy of data stored on the at
5 least one additional mirror-in-the-middle satisfies the at least one constraint if the
6 copy of data stored on the first mirror-in-the-middle satisfies the at least one
7 constraint.